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SYSTEM AND METHOD FOR MULTI-CARRIER MODULATION

5 ABSTRACT

A method of compensating for carrier frequency and phase errors of a received multi-carrier modulated signal. The received multi-carrier signal including modulated carriers for transmitting known data and unmodulated carriers for error correction, comprising, time domain down converting the received multi-carrier signal to base-band to provide a down-converted signal, the down-converted signal including a plurality of modulated carriers for transmitting known data and unmodulated carriers for error correction. Sampling an unmodulated carrier of the down-converted signal to provide received data samples. Providing a reference signal derived from the unmodulated carrier of the down-converted signal. And, estimating phase errors from a phase difference between the unmodulated carrier and the reference signal derived from the unmodulated carrier of the down-converted signal to provide a plurality of received sample phase error estimates for each modulated carrier.

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